AMENDMENT TO THE CLAIMS

1. (Currently Amended) A biomedical device comprising a ~~substrate~~natural tissue and a polypeptide growth factor associated with the ~~substrate~~ natural tissue by covalent bonding using crosslinking agents, antibody-antigen associations, specific binding protein-receptor associations or enzyme-substrate associations, wherein the crosslinking agents comprise at least two aldehyde functional groups that form covalent bonds to link the crosslinking agent directly with the polypeptide growth factor and the ~~substrate~~natural tissue, the polypeptide growth factor associated with the ~~substrate~~ natural tissue being effective to stimulate association of viable cells with the substrate.

2. Canceled

3. (Previously Presented) The biomedical device of claim 1 wherein the crosslinking agent comprises difunctional aldehydes.

4. (Previously Presented) The biomedical device of claim 3 wherein the difunctional aldehyde comprises glutaraldehyde.

5-7. Canceled

8. (Currently Amended) The biomedical device of claim 1 wherein the ~~substrate~~ natural tissue comprises xenograft or homograft tissue.

9. (Currently Amended) The biomedical device of claim 1 wherein the ~~substrate~~ natural tissue comprises human tissue.

10. (Currently Amended) The biomedical device of claim 1 wherein the ~~substrate~~

natural tissue is selected from the group consisting of porcine tissue, bovine tissue, kangaroo tissue, canine tissue and a combination thereof.

11. Canceled

12. Canceled

13. (Previously Presented) The biomedical device of claim 1 wherein the polypeptide growth factor comprises vascular endothelial growth factor.

14. (Previously Presented) The biomedical device of claim 1 wherein the polypeptide growth factor comprises Tat protein.

15. (Previously Presented) The biomedical device of claim 1 wherein the biomedical device comprises an artificial organ, a heart valve prosthesis, an annuloplasty ring, a stent, a pledget, suture, an electrical lead, a permanently in-dwelling percutaneous device, an AV shunt, a vascular graft, a dermal graft or a surgical patch.

16-27. Canceled

28. (Previously Presented) A biomedical device comprising a biocompatible substrate and a polypeptide growth factor associated with the biocompatible substrate, the polypeptide growth factor being effective to stimulate association of viable cells with the substrate, wherein the polypeptide growth factor comprises Tat protein.

29. (Previously Presented) The biomedical device of claim 28 wherein the biocompatible substrate comprises tissue.

30-32. Canceled

33. (Previously Presented) The biomedical device of claim 28 further comprising an adhesive, the adhesive being associated with the polypeptide growth factor and the substrate.

34. (Previously Presented) A biomedical device comprising a substrate and a polypeptide growth factor associated with the substrate by antibody-antigen associations, specific binding protein-receptor associations or enzyme-substrate associations, the polypeptide growth factor associated with the substrate being effective to stimulate association of viable cells with the substrate.

35. (Previously Presented) The biomedical device of claim 34 wherein the biocompatible substrate comprises tissue.

36. (Previously Presented) The biomedical device of claim 34 wherein the biocompatible substrate comprises a synthetic material.

37. (Previously Presented) The biomedical device of claim 34 wherein the substrate comprises a bioresorbable material.

38. (Previously Presented) The biomedical device of claim 34 wherein the polypeptide growth factor is associated with the substrate by antibody-antigen associations.

39. (Previously Presented) The biomedical device of claim 34 wherein the polypeptide growth factor is associated with the substrate by specific binding protein-receptor associations.

40. (Previously Presented) The biomedical device of claim 34 wherein the polypeptide growth factor is associated with the substrate by enzyme-substrate associations.

41. (Previously Presented) A prosthesis comprising:

a substrate of the prosthesis; and

a polypeptide growth factor associated with the substrate, the polypeptide growth factor being effective to stimulate association of viable cells with the substrate,

wherein said polypeptide growth factor comprises Tat protein.

42. (Previously Presented) The prosthesis of claim 41 further comprising an adhesive, the adhesive being associated with the polypeptide growth factor and the substrate.

43. (Previously Presented) The biomedical device of claim 28 further comprising a crosslinking agent, said crosslinking agent associating the growth factor to the biocompatible substrate.

44. (Previously Presented) A prosthesis comprising a substrate and a polypeptide growth factor associated with the substrate, the polypeptide growth factor being effective to stimulate association of viable cells with the substrate, said polypeptide growth factor comprising Tat protein, said polypeptide growth factor is associated with the substrate by covalent bonding using crosslinking agents, antibody-antigen associations, specific binding protein-receptor associations, enzyme-substrate associations, or an adhesive.

45. (Currently Amended) A biomedical device comprising a ~~substrate~~ biological matrix and a polypeptide growth factor crosslinked to the ~~substrate~~ biological matrix by covalent bonding using crosslinking agents, wherein the crosslinking agents comprise

at least two aldehyde functional groups that form covalent bonds to link the crosslinking agent directly with the polypeptide growth factor and the ~~substrate~~ biological matrix, the polypeptide growth factor associated with the ~~substrate~~ biological matrix being effective to stimulate association of viable cells with the substrate.

46. (Currently Amended) A prosthesis comprising a substrate, the substrate not including a linker molecule attached thereto, and a polypeptide growth factor crosslinked to the substrate by covalent bonding using crosslinking agents, wherein the crosslinking agents comprise at least two aldehyde functional groups that form covalent bonds to link the crosslinking agent directly with the polypeptide growth factor and the substrate, the polypeptide growth factor associated with the substrate being effective to stimulate association of viable cells with the substrate.